

5. On the Mammals of Christmas Island.  
By OLDFIELD THOMAS, Natural History Museum.

[Received October 15, 1888.]

Mr. J. J. Lister has most kindly submitted to me for examination the Mammals he obtained on Christmas Island during the visit of H.M.S. 'Egeria' to that place.

The Collection contains a series of both the Mammals discovered by Capt. Maclear in the previous year, namely, *Pteropus natalis* and *Mus macleari*, the extra specimens supplying considerable additional information about the species. There are also two specimens of another large Rat, representing a second new species, and of a Shrew, which Dr. Dobson considers to be a distinct geographical variety of *Crocidura fuliginosa*, Blyth, a species that extends from the Himalayas through Burma to Java.

1. *CROCIDURA FULIGINOSA TRICHURA*, Dobs.<sup>1</sup>, var. nov.

4 specimens.

*a* (type). Head and body 70 millim., tail 80, hind foot 16·6, lower leg 20·5, forearm and hand 21.

"This variety differs from the typical form in the much greater length of the tail, which also, unlike most specimens of that species, is beset with long fine hairs; it has also a longer hind foot.

"In the shape of the skull and teeth and in all other characters it so closely resembles typical examples of *C. fuliginosa* that I hesitate to consider it more than a local variety of that species."—G. E. D.

2. *PTEROPUS NATALIS*, Thos.

*Pteropus natalis*, Thos. P. Z. S. 1887, p. 511, pl. xli.

9 specimens.

Forearms of four of them: ♂, 135, 124; ♀, 128, 126 millim.

This species was originally described from female specimens only, and when describing it I expressed the doubt there was as to whether the males would have a yellow tippet or not. This doubt Mr. Lister has fortunately dispelled by obtaining several adult male specimens, which turn out to be precisely like the females, their necks being as absolutely black as are those of the other sex.

3. *MUS MACLEARI*, Thos.

*Mus macleari*, Thos. t. c. p. 513, pl. xlii.

7 specimens.

The following are the chief measurements of some of the additional specimens of this fine species obtained by Mr. Lister:—

<sup>1</sup> Dr. Dobson is the author of this description, and should be looked upon as wholly responsible for the distinction of the variety.

	Head and body.	Tail.	Hind foot.	Forearm and hand.	Ear.	Heel to front of last foot-pad.
	millim.	millim.	millim.	millim.	millim.	millim.
a. ♂..	235	246	50	67	17·5	25
b. ♂..	235	253	50	67	17	25·5
c. ♀..	240	257	49	66	17·5	25
d. ♀..	222	267	50	70	16·7	26

Mr. Lister's numerous specimens of this species agree very closely with one another and with the type, the only point in which they vary being in the degree in which the under surface is white or brown. All the females have the mammary formula 1—1=4.

#### 4. *MUS NATIVITATIS*, sp. n.

2 specimens.

	Head and body.	Tail.	Hind foot.	Forearm and hand.	Ear.	Heel to front of last foot-pad.
	millim.	millim.	millim.	millim.	millim.	millim.
a. ♂ (type)	254	176	54	66	20 × 17	26·6
b. ♂ . . . .	264	175	54	65	18 × 17	27·3

*Skull*.—Basal length 46·8, greatest breadth 24·8; nasals, length 20·5; interorbital breadth 8·7; interparietal, length 7·1, breadth 12·5; infraorbital foramina—length of outer wall 4·1, breadth from outer corner of one to that of the other, 13·4; palate—length 26·7, breadth outside m.<sup>1</sup> 9·0, inside m.<sup>1</sup> 4·5; diastema 15·5; length of anterior palatine foramina 9·3; length of upper molar series 7·6. Lower jaw—length (bone only) 30, (to incisor-tips) 34·6, greatest height, obliquely, from coronoid to angle, 15.

Size large; form thick and clumsy, the limbs and tail stout and heavy, but the head peculiarly small, slender and delicate. General colour dark umber-brown all over, the belly not, or scarcely, lighter than the back. Ears small, laid forward they barely reach to the posterior canthus of the eye. Fur of back long, thick, and coarse, but without the extremely long piles so characteristic of *M. macleari*, the longest hairs being about 40 or 45 millim. in length. Hands and feet very thick and heavy; the claws, especially on the fore feet, enormously broad and strong, not compressed, more than twice the size of those of *M. macleari*, and evidently modified for burrowing. Palms and soles naked, smooth; the pads broad, low, and rounded, unusually little prominent; last hind foot-pad elongate. Tail shorter than the body without the head, very thick, evenly tapering, nearly or quite naked; its scales triangular, very large, the rings averaging about 7 or 8 to the centimetre<sup>1</sup>; its colour uniform blackish brown throughout, above and below, the white skin, however, showing to a certain extent between the scales.

Skull disproportionately small, light and delicate; compared with that of *M. macleari* it is slightly shorter and very considerably narrower.

<sup>1</sup> 10 to 12 in *M. macleari*.

Supraorbital edges evenly divergent, slightly beaded, but without any marked postorbital thickening. Outer plate of anterior zygoma-root short and weak, scarcely projected forwards. Anterior palatine foramina long, reaching backwards just to the level of the front of m.<sup>1</sup> Bullæ rather larger than in *M. macleari*, but far smaller than in *M. everetti*. Lower jaw very thin and slender, contrasting very markedly with *M. macleari* in this respect.

Teeth small and weak, their structure as usual. Front of incisors orange above, yellow below.

This fine Rat cannot possibly be confounded with any other known species of the genus<sup>1</sup>. Its size, peculiarly small and delicate head, short unicolor tail, large hands and feet, and powerful digging claws, separate it at once from any of its congeners. In some respects it agrees with the description given long ago by Hermann of his *Mus javanus*<sup>2</sup>, but its brown underside and naked tail prove that it is not really the same, and it is probable that Hermann's description was merely founded on an unusually large specimen of *Mus decumanus*.

The presence of a second large Rat in such a small island as Christmas Island is a very noteworthy fact, and recalls the state of things existing in Guadalcanar, Solomon Islands, where two still larger Rats, *Mus imperator* and *M. rex*, one terrestrial and fossorial, and the other arboreal, live side by side in the same locality<sup>3</sup>.

Mr. Lister is to be congratulated on his discovery of this, the largest member of the indigenous Mammalian fauna of Christmas Island. It is unfortunate that he did not succeed in obtaining a female specimen of it, as its mammary formula, perhaps the most important character within the restricted genus *Mus*, therefore remains still unknown.

## 6. On the Reptiles of Christmas Island.

By G. A. BOULENGER.

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In addition to the three kinds of Reptiles<sup>4</sup> found on the island by the 'Flying-Fish' Expedition, examples of which were also obtained by Mr. Lister, we have to record two new Lizards, viz. a *Gecko*, and a Scink closely allied to the widely-distributed *Ablepharus boutoni*. Thus, of the five species of Reptiles now known to inhabit Christmas Island, four appear to be endemic, whilst the fifth, *Gymnodactylus*

<sup>1</sup> *Mus infraluteus*, a species from Mount Kina Balu, North Borneo, described by the present author (Ann. & Mag. N. H. (6) ii. p. 409) since the above was written, has a considerable superficial resemblance to *M. nativitatis*. Its tail, however, is longer, and its skull is large and heavy, in due proportion to the size of the body.

<sup>2</sup> Obs. Zool. p. 63 (1804).

<sup>3</sup> See *suprà*, pp. 479-81.

<sup>4</sup> *Gymnodactylus marmoratus*, Kuhl; *Lygosoma nativitatis*, Blgr.; and *Typhlops exocæti*, Blgr. See P. Z. S. 1887, p. 516.